# Exercises

## Technical Questions

1. Explain which of the following are counted as part of the money supply (M1):
   a. Checking account deposits
   b. Stocks
   c. Savings account deposits
   d. Government bonds
2. What is a fractional reserve banking system? What is its role in the monetary side of the economy?
3. If the reserve requirement ($rr$) is 0.2, what is the simple deposit multiplier? If, in addition, the currency deposit ratio ($c$) is 0.05 and the excess reserve ratio ($e$) is 0.15, what is the money multiplier? Explain why the money multiplier differs from the simple deposit multiplier.
4. What are the three tools the Federal Reserve uses to change the money supply and interest rates in the economy? Which of these tools is most important and why?
5. Explain which of these interest rates the Federal Reserve sets:
   a. The discount rate
   b. The federal funds rate
   c. The prime rate
6. In each of the following cases, explain whether the statements are true or false:
   a. If the real money demand is greater than the real money supply, interest rates must rise to reach equilibrium in the money market as people sell bonds to obtain more money.
   b. The federal government's control of the money supply, which influences interest rates, is the primary tool that policy makers use to impact the macro economy.
   c. A decrease in the reserve requirement decreases the money supply because banks have fewer reserves.
   d. The real money demand curve shows how households and businesses change their spending in response to changes in the interest rate.
   e. Both an increase in the nominal money supply by the Federal Reserve and an increase in the price level will cause the real money supply curve to shift to the right.

# Application Questions

1. In current business publications or on the Federal Reserve Web site (www.federalreserve.gov), find the press release from the most recent meeting of the FOMC. What is the targeted federal funds rate? How does the FOMC evaluate the balance of risks between its goals of price stability and sustainable economic growth?
2. Drawing on articles in the *Wall Street Journal* and other business publications, evaluate the following statement: "What the FOMC says is becoming as important as what it does regarding monetary policy implementation." Find the "Parsing the Fed" feature in the online *Wall Street Journal* for the most recent FOMC press release. Does this feature support the statement in quotes?
3. On the Federal Reserve Web site (www.federalreserve.gov), find the version of the Beige Book that summarizes economic conditions in your Federal Reserve district. Summarize those conditions and relate them to current FOMC policy.
4. On the Federal Reserve Web site (www.federalreserve.gov), find the minutes of the most recent FOMC meeting. (Minutes of a given meeting are published after the next scheduled meeting, so they lag behind the press releases of the most recent meeting.) Summarize the factors that led to the decision regarding the federal funds rate at that meeting.
5. Building on Figures 13.5 and 13.6, show how equilibrium in the money market would change:
   a. If money demand is less sensitive to the interest rate or
   b. If there is a greater responsiveness of money demand to changes in income

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change in the nominal money supply causes a shift of the aggregate demand curve, whereas a change in the price level causes a movement along the aggregate demand curve. Explain.

4. Evaluate whether each of the following statements is true or false, and explain your answer:
   a. The short-run aggregate supply (*SAS*) curve slopes upward because households spend more as their incomes increase.
   b. The long-run aggregate supply curve can never shift.
   c. Either a decrease in the nominal money supply by the Federal Reserve, all else held constant, or an increase in the price level, all else held constant, will shift the aggregate demand (*AD*) curve to the left.
   d. The Keynesian portion of the short-run aggregate supply (*SAS*) curve would be relevant during a recessionary situation.
   e. Stagflation occurs when the aggregate demand (*AD*) curve shifts out on the upward sloping portion of the short-run aggregate supply (*SAS*) curve.
5. In a closed (no foreign sector), mixed economy with stable prices, if we assume that consumption (*C*) and investment (*I*) spending do *not* depend on the interest rate (*r*), can we conclude that
   a. The interest-related expenditure (*IRE*) function is vertical?
   b. Monetary policy has *no* effect on real income and output? Explain your answers.
6. If the economy is operating on the upward sloping portion of the short-run aggregate supply (*SAS*) curve, show that an increase in aggregate demand (*AD*) from expansionary fiscal policy will result in an increase in both real income (*Y*) and the price level (*P*).

## Application Questions

1. Describe how the following statements relate to the *AD–AS* model:
   a. The Fed has bought more than $2 trillion of Treasury and mortgage bonds to stimulate the economy.
   b. The above actions by the Fed may cause inflation to rise to levels that most would consider unacceptable.
   c. The Fed expected a weaker dollar to help increase exports.
   d. Businesses already have ample access to cheap credit and are reluctant to borrow, hire, and invest for other reasons.
2. Find one or more articles in the *Wall Street Journal* or other business publications that describe changes in fiscal and monetary policies in the United States. Discuss how these policies relate to the model of aggregate demand and aggregate supply and the issues involved in implementing the policies.
3. Find recent policy descriptions of the variables influencing aggregate demand drawn from the *Wall Street Journal* and other current business publications.
4. Using both the sources in this chapter and updated articles from the literature, discuss the debate over the rate of increase in productivity in the economy and the impact that productivity changes have on real GDP and the price level.
5. Find the most recent summary of the survey of economic forecasters in the *Wall Street Journal*. What are the predictions for changes in real GDP and its major components, inflation, and unemployment? Describe the degree of consensus among the various forecasters.

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